Giorgio Pia

List of Publications by Year
in descending order

61 papers	1,221 citations	331259 21 h-index	377514 34 g-index
61 all docs	61 docs citations	61 times ranked	927 citing authors

#	Article	IF	Citations
1	An intermingled fractal units model to evaluate pore size distribution influence on thermal conductivity values in porous materials. Applied Thermal Engineering, 2014, 65, 330-336.	3.0	93
2	An intermingled fractal units model and method to predict permeability in porous rock. International Journal of Engineering Science, 2014, 75, 31-39.	2.7	73
3	A geometrical fractal model for the porosity and thermal conductivity of insulating concrete. Construction and Building Materials, 2013, 44, 551-556.	3.2	72
4	A geometrical fractal model for the porosity and permeability of hydraulic cement pastes. Construction and Building Materials, 2010, 24, 1843-1847.	3.2	67
5	Porosity and pore size distribution influence on thermal conductivity of yttria-stabilized zirconia: Experimental findings and model predictions. Ceramics International, 2016, 42, 5802-5809.	2.3	52
6	Porous ceramic materials by pore-forming agent method: An intermingled fractal units analysis and procedure to predict thermal conductivity. Ceramics International, 2015, 41, 6350-6357.	2.3	50
7	A fractal model of the porous microstructure of earth-based materials. Construction and Building Materials, 2008, 22, 1607-1613.	3.2	48
8	Intermingled fractal units model and electrical equivalence fractal approach for prediction of thermal conductivity of porous materials. Applied Thermal Engineering, 2013, 61, 186-192.	3.0	46
9	On the elastic deformation properties of porous ceramic materials obtained by pore-forming agent method. Ceramics International, 2015, 41, 11097-11105.	2.3	45
10	Predicting capillary absorption of porous stones by a procedure based on anintermingled fractal units model. International Journal of Engineering Science, 2014, 82, 196-204.	2.7	41
11	Coarsening of nanoporous Au: Relationship between structure and mechanical properties. Acta Materialia, 2015, 99, 29-38.	3.8	39
12	Fractal modelling of mediumâ€“high porosity SiC ceramics. Journal of the European Ceramic Society, 2008, 28, 2809-2814.	2.8	37
13	Nanoporous Au: Statistical analysis of morphological features and evaluation of their influence on the elastic deformation behavior by phenomenological modeling. Acta Materialia, 2015, 85, 250-260.	3.8	37
14	Case studies on the influence of microstructure voids on thermal conductivity in fractal porous media. Case Studies in Thermal Engineering, 2014, 2, 8-13.	2.8	32
15	On the elastic deformation behavior of nanoporous metal foams. Scripta Materialia, 2013, 69, 781-784.	2.6	31
16	Pore size distribution and porosity influence on Sorptivity of ceramic tiles: From experimental data to fractal modelling. Ceramics International, 2016, 42, 9583-9590.	2.3	30
17	Surface wear resistance of chemically or thermally stabilized earth-based materials. Materials and Structures/Materiaux Et Constructions, 2008, 41, 751-758.	1.3	27
18	Fractal and multifractal analysis of fracture surfaces caused by hydrogen embrittlement in high-Mn twinning/transformation-induced plasticity steels. Applied Surface Science, 2019, 470, 870-881.	3.1	25

#	Article	IF	Citations
19	Fluid flow in complex porous media: Experimental data and IFU model predictions for water vapour permeability. Journal of Natural Gas Science and Engineering, 2016, 35, 283-290.	2.1	24
20	High porous yttria-stabilized zirconia with aligned pore channels: Morphology directionality influence on heat transfer. Ceramics International, 2016, 42, 11674-11681.	2.3	23
21	Gyroidal structures as approximants to nanoporous metal foams: clues from mechanical properties. Journal of Materials Science, 2017, 52, 1106-1122.	1.7	22
22	Thermal conductivity of porous stones treated with UV light-cured hybrid organicâ€"inorganic methacrylic-based coating. Experimental and fractal modeling procedure. Progress in Organic Coatings, 2016, 94, 105-115.	1.9	21
23	Grain boundary design based on fractal theory to improve intergranular corrosion resistance of TWIP steels. Materials and Design, 2020, 185, 108253.	3.3	21
24	Nanoporous Au foams: Variation of effective Young's modulus with ligament size. Scripta Materialia, 2018, 144, 22-26.	2.6	20
25	Ag surface segregation in nanoporous Au catalysts during CO oxidation. Scientific Reports, 2018, 8, 15208.	1.6	16
26	A fuzzy model for classifying mechanical properties of vesicular basalt used in prehistoric buildings. Materials Characterization, 2008, 59, 606-612.	1.9	15
27	Kinetics of nanoporous Au formation by chemical dealloying. Scripta Materialia, 2014, 76, 57-60.	2.6	15
28	Coupling of mechanical deformation and reaction in mechanochemical transformations. Physical Chemistry Chemical Physics, 2021, 23, 229-245.	1.3	15
29	Statistical study on the effects of heterogeneous deformation and grain boundary character on hydrogen-induced crack initiation and propagation in twining-induced plasticity steels. Corrosion Science, 2021, 192, 109796.	3.0	15
30	Thermal properties of porous stones in cultural heritage: Experimental findings and predictions using an intermingled fractal units model. Energy and Buildings, 2016, 118, 232-239.	3.1	14
31	Heat transfer in high porous alumina: Experimental data interpretation by different modelling approaches. Ceramics International, 2017, 43, 9184-9190.	2.3	13
32	Coatingâ€™s influence on water vapour permeability of porous stones typically used in cultural heritage of Mediterranean area: Experimental tests and model controlling procedure. Progress in Organic Coatings, 2017, 102, 239-246.	1.9	12
33	Thermally and catalytically induced coarsening of nanoporous Au. Materials Letters, 2016, 183, 114-116.	1.3	11
34	Mechanical Properties of Nanoporous Au: From Empirical Evidence to Phenomenological Modeling. Metals, 2015, 5, 1665-1694.	1.0	10
35	Fabrication of Nanoporous Al by Vapor-Phase Dealloying: Morphology Features, Mechanical Properties and Model Predictions. Applied Sciences (Switzerland), 2021, 11, 6639.	1.3	10
36	Bending strength of porous ceramics tiles: Bounds and estimates of effective properties of an Intermingled Fractal Unitsâ€™ model. Ceramics International, 2018, 44, 10241-10248.	2.3	9

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37	Water Absorption Properties of Cement Pastes: Experimental and Modelling Inspections. Advances in Materials Science and Engineering, 2018, 2018, 1-9.	1.0	9
38	A phenomenological approach to yield strength in nanoporous metal foams. Scripta Materialia, 2015, 103, 26-29.	2.6	8
39	Surface stresses and Youngâ€™s modulus in nanoporous Au foams. Scripta Materialia, 2014, 84-85, 55-58.	2.6	7
40	Mechanical behavior of nanoporous Au with fine ligaments. Chemical Physics Letters, 2015, 635, 35-39.	1.2	7
41	Thermal behaviour of clay ceramics obtained by Spark Plasma Sintering: Is fractal geometry a new possible road to design porous structures?. Ceramics International, 2018, 44, 21710-21716.	2.3	6
42	From nature geometry to material design: Advanced fractal nature analysis for predicting experimental elastic properties. Ceramics International, 2020, 46, 23947-23955.	2.3	6
43	Microscopic kinetic information from Ag oxalate mechanochemistry in ball drop experiments. Materials Letters, 2020, 267, 127525.	1.3	5
44	Pore Size Distribution Influence on Suction Properties of Calcareous Stones in Cultural Heritage: Experimental Data and Model Predictions. Advances in Materials Science and Engineering, 2016, 2016, 1-10.	1.0	4
45	Hardening of nanoporous Au foams induced by surface chemistry. Materials Letters, 2017, 196, 332-334.	1.3	4
46	Microstructural evolution in porous ceramics subjected to freezing-thawing cycles: Modelling experimental outcomes. Ceramics International, 2018, 44, 16992-16998.	2.3	4
47	Grain size reduction in Cu powders subjected to ball milling and ball drop experiments. Materials Letters, 2018, 232, 33-35.	1.3	4
48	Porosity effects on water vapour permeability in earthen materials: Experimental evidence and modelling description. Journal of Building Engineering, 2020, 27, 100987.	1.6	4
49	Differential damage in the semi-confined Munazio Ireneo cubicle in Cagliari (Sardinia): a correlation between damage and microclimate. Environmental Earth Sciences, 2017, 76, 1.	1.3	3
50	Advances in Modelling of Heat and Mass Transfer in Porous Materials. Advances in Materials Science and Engineering, 2019, 2019, 1-2.	1.0	3
51	Morphology influence on elastic deformation behaviour of high porous ceramics. Experimental and phenomenological model predictions. Ceramics International, 2021, 47, 23368-23375.	2.3	3
52	Weathering of earth-painted surfaces: Environmental monitoring and artificial aging. Construction and Building Materials, 2022, 344, 128193.	3.2	3
53	Application of a Novel Method for a Simulation of Conductivity of a Building Material in a Climatic Chamber. Energy Procedia, 2015, 81, 995-1004.	1.8	2
54	A mapping approach to pattern formation in the early stages of mechanical alloying. Philosophical Magazine Letters, 2019, 99, 192-198.	0.5	2

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55	Coarsening of nanoporous Au during catalytic CO oxidation. Materials Letters, 2019, 253, 159-161.	1.3	2
56	Solid Particle Erosion of a Limestone Target Surface under Controlled Conditions. Advances in Materials Science and Engineering, 2020, 2020, 1-8.	1.0	2
57	Milling Dynamics and Propagation of Mechanically Activated Self-Sustaining Reactions. Advances in Materials Science and Engineering, 2020, 2020, 1-10.	1.0	1
58	Stable CsPbBr3 Nanocrystalsâ€"Decorated Nanoporous Gold for Optoelectronic Applications. Crystals, 2022, 12, 863.	1.0	1
59	Stiffening of nanoporous Au induced by water physisorption. Materials Letters, 2018, 220, 116-118.	1.3	0
60	Hardening of Nanoporous Au Induced by Exposure to Different Gaseous Environments. Materials, 2022, 15, 2718.	1.3	0
61	Estimation of Nanoporous Au Youngâ€™s Modulus from Serial Block Face-SEM 3D-Characterisation. Materials, 2022, 15, 3644.	1.3	0